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| **TB CARE I**

BOTSWANA

Year 1

Annual Report

October 1, 2010 – September 30, 2011

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List of Abbreviations

AFB	Acid Fast Bacilli
CDC	Center for Disease Control and Prevention
CMLT	Chief Medical Laboratory technician
DOT	Directly Observed Treatment
DOTS	Directly Observed Treatment Short Course
DR	Drug Resistance
DRS	Drug Resistance Survey
DST	Drug Susceptibility Testing
EQA	External Quality Assurance
GFATM	Global Fund for Aids, Tuberculosis and Malaria
IC	Infection Control
KNCV	KNCV Tuberculosis Foundation
MDR	Multi Drug Resistance
MDRTB	TB Multi Drug Resistant Tuberculosis
M&E	Monitoring and Evaluation
MGIT	Mycobacteria Growth Indicator Tube
MOH	Ministry of Health
NTP	National TB Program
NTRL	National Tuberculosis Reference Laboratory
OR	Operational Research
PMDT	Programmatic Management of Drug-resistant Tuberculosis
QMR	Quarterly Monitoring Report
SLD	Second Line Drug
SNRL	Supra National Reference Laboratory
SOP	Standard Operating Procedures
SS+	Sputum Smear positive
SS-	Sputum Smear negative
TA	Technical Assistance
TB	Tuberculosis
USAID	United States Agency for International Development

Executive Summary

KNCV is the lead partner and sole implementer in Botswana of the TB CARE I project. The total buy in amount is \$378,000.

The Botswana team is comprised of two staff members: one Senior Technical Advisor to the National health laboratories and one Chief Medical Laboratory Technician-EQA (CMLT).

The Senior Technical Advisor's role was to support the National Tuberculosis reference laboratories in scaling up liquid culture, first and second line DST and the introduction of Molecular testing techniques. The CMLT supports the NTRL in accreditation (quality management systems), EQA for the Botswana national AFB microscopy laboratory network and training of laboratory technician from peripheral laboratories.

In the first year of TB CARE I the project's main focus was on the following technical areas: universal and early access, laboratories, IC, PMDT, TB/HIV and M&E. A KNCV Senior International Consultant facilitated the development of action plans for TB-IC, PMDT, Community DOTS and TB/HIV during a workshop with approximately 40 stakeholders in total (2 full-day training sessions). This was followed up with the development of a draft National TB Strategic plan for the 2012-2016 during a 4 day workshop attended by 34 stakeholders. A KNCV consultant facilitated development of a costed TB prevalence survey protocol (co-financed by the Global Fund) in collaboration with in-country stakeholders. A budget expert was also subcontracted by KNCV to cost the National strategic plan. Costing of both the Botswana strategic plan and the prevalence survey protocol will strengthen the country's proposal for the Global fund round 11. The CMLT supported the training of 78 laboratory technicians (Males=43, Females=35) in AFB smear microscopy and supported the continuous running of the EQA program. KNCV Senior Technical Advisor supported development of SOP package for validation of MGIT DST, M&E tool for laboratory quality indicators and trained 12 technicians in using the package. The renovation of the laboratory has delayed the accreditation process and validation of MGIT DST. Recruitment of a Senior TB Advisor for the NTP has been delayed due to new PEPFAR requirements.

Introduction

TB CARE I in Botswana with sole implementation by KNCV was awarded a budget of \$US378,000 focused on the provision of technical support from both in-country local and periodic international expert technical advisors. During quarters 2-4 of 2011, KNCV provided technical assistance to support the national TB laboratory network in EQA, accreditation and in validation of new novel laboratory diagnostics. During quarters 2-4 of 2011, senior international KNCV technical advisors visited Botswana to provide in-country technical support in (a) monitoring and action plan development in the following technical areas: Universal Access (with a focus on Community DOTS expansion), TB-IC, PMDT, M&E and TB/HIV (b) development of a prevalence survey protocol and (c) development of a costed draft national strategic plan.

Universal Access

Technical Outcomes

Expected Outcomes		Outcome Indicators	Indicator Definition	Baseline	Target	Result	Comments
					Y1	Y1	
(1)	Establish a synergistic (all stakeholders) action plan for Community DOTS scale-up in Botswana	Action plan for Community DOTS scale-up		No	Yes	Yes	

Key Achievements

A draft action plan was developed and a national thematic group on community DOTS were established who worked on finalizing the action plan. This exercise resulted in on-site capacity building in this specific thematic area. Further, it allowed harmonization of strategic objectives among a variety of stakeholders.

Challenges and Next Steps

A lack of follow-up to finalize the action plans with multiple stakeholders was a problem as reported by the NTP. The next step was to integrate these action plans into the broader updated national strategic plan and the future GF Round 11 application.

Laboratories

Technical Outcomes

Expected Outcomes		Outcome Indicators	Indicator Definition	Baseline	Target Y1	Result Y1	Comments
(2.1)	Training of lab techs in smear microscopy including external quality assurance	Number of local staff trained on smear-microscopy including external quality assurance	Number of local lab techs trained or retrained at the NTRL (1 week course) every two years by September 2011. Note: this is an ongoing activity from	0	75	78	Trained 78 laboratory technicians (35 females and 43 males)

			TB CAP but the denominator is set to "0" for TB CARE.				
(2.2)	SANAS accreditation for the Botswana TB National Reference Laboratory	Botswana NTRL is successfully accredited by SANAS	SANAS provides written proof of passing accreditation by September 2011	No	Yes	Ongoing	SANAS have scheduled for a site visit in October 2011
(2.3)	Finalized validation of MGIT 1st line drug susceptibility testing and begin validation for 2nd line testing	Laboratory capacity for quality 1st line drug susceptibility testing	The Botswana NTRL has the capacity to perform quality 1st line DST and enhances capacity to perform 2nd line DST	No	Yes	Ongoing	Laboratory Renovation led to the postponement of the validation

Key Achievements

At the end of quarter 4, 78 laboratory technicians (43 males and 35 females) had been trained in AFB smear microscopy. The National Tuberculosis Reference Laboratory passed document review by SANAS the regional accreditation body and awaits a site assessment scheduled for the month of October. A functional and stable EQA program has been maintained according to the workplan. The In-country Senior Technical Advisor to the NTRL facilitated the development of Standard Operating procedures for First and Second Line Drug Susceptibility testing on MGIT. An M&E tool for laboratory routine diagnostics was also developed and 12 laboratory technicians (6 males and 6 females) were trained in its use. The laboratory has also been shortlisted as a SADC Regional Supranational Reference laboratory. The SADC assessment team noted that the Quality system was a strong component in the NTRL, this has been supported by KNCV staff.

Challenges and Next Steps

Due to delays in the renovation of the laboratory and shortages in staff there was a delay in starting the validation of the new lab diagnostics. The Senior Technical Advisor, who will be based at the regional office, will be through one mission in TB CARE 1 APA 2 support the finalization of the validation. The Initial assessment scheduled for the month of July was moved to October due to delays in laboratory renovation

Technical Outcomes

Expected Outcomes		Outcome Indicators	Indicator Definition	Baseline	Target Y1	Result Y1	Comments
(3.1)	Establish a synergistic (all stakeholders) action plan for TB infection control scale-up in Botswana	Action plan for TB Infection Control scale-up		No	Yes	Yes	

Key Achievements

A draft action plan on TB-IC was developed and a national thematic group on TB-IC was established to steer the development of a final action plan. This exercise resulted in on-site capacity building in this specific thematic area. Further, it allowed harmonization of strategic objectives among a variety of stakeholders.

Challenges and Next Steps

A lack of follow-up to finalize the action plans with multiple stakeholders was a problem as reported by the NTP. The next step was to integrate these action plans into the broader updated national strategic plan and the future GF Round 11 application.

Programmatic Management of Drug Resistant TB (PMDT)**Technical Outcomes**

Expected Outcomes		Outcome Indicators	Indicator Definition	Baseline	Target Y1	Result Y1	Comments
(4.1)	Establish a synergistic (all stakeholders) action plan for PMDT scale-up in Botswana	Action plan for PMDT scale-up		No	Yes	Yes	

Key Achievements

A draft action plan on PMDT was developed and a national thematic group on PMDT was established to steer the development of a final action plan. This exercise resulted in on-site capacity building in this specific thematic area. Further, it allowed harmonization of strategic objectives among a variety of stakeholders.

Challenges and Next Steps

A lack of follow-up to finalize the action plans with multiple stakeholders was a problem as reported by the NTP. The next step was to integrate these action plans into the broader updated national strategic plan and the future GF Round 11 application.

TB/HIV

Technical Outcomes

Expected Outcomes		Outcome Indicators	Indicator Definition	Baseline	Target	Result	Comments
					Y1	Y1	
(5.1)	Establish a synergistic (all stakeholders) action plan for TB/HIV scale-up in Botswana	Action plan for TB/HIV scale-up		No	Yes	Yes	

Key Achievements

A draft action plan on TB/HIV was developed and an already existing national thematic group on TB/HIV was to steer the development of a final action plan. This exercise resulted in on-site capacity building in this specific thematic area. Further, it allowed harmonization of strategic objectives among a variety of stakeholders.

Challenges and Next Steps

A lack of follow-up to finalize the action plans with multiple stakeholders was a problem as reported by the NTP. The next step was to integrate these action plans into the broader updated national strategic plan and the future GF Round 11 application.

Monitoring & Evaluation, Surveillance and OR

Technical Outcomes

Expected Outcomes	Outcome Indicators	Indicator Definition	Baseline	Target	Result	Comments
				Y1	Y1	

(7.1)	Prevalence survey study protocol development	Preparation of a TB prevalence survey study protocol	TB CARE KNCV technically assists the NTP and partners to develop a TB prevalence survey study protocol	No	Yes	Yes	KNCV TA in collaboration with partners developed TB prevalence survey protocol (Co-financed by Global Fund). A final draft of the Protocol is now available
(7.2)	Reduce proportion of new smear positive DOTS treatment outcome cohorts classified as not evaluated	Proportion of new smear positive DOTS treatment outcome cohorts classified as not evaluated	TB CARE 1 KNCV technically assists to reduce proportion of new smear positive DOTS treatment outcome cohorts classified as not evaluated	No	Yes	Yes	This activity was replaced with supporting the development of strategic plan for the BNTP 2012-2016. First draft of National Strategic plan was developed and costed.

Key Achievements

International KNCV consultant with in-country partners developed a TB prevalence protocol of which a final draft is now available. Activity 7.2 with approval from USAID was replaced with development of a National Strategic plan. In quarter 4 a Senior KNCV consultant facilitated the development of a draft strategic plan. A budget expert also funded through TB CARE I supported the costing of the strategic plan. Due to the challenges of follow-up with the earlier action planning exercises, we designed the workshop to have less follow-up needed and a product on the spot during the workshop. This was a successful approach, per lessons learned.

Challenges and Next Steps

TB CARE I APA 1 supported the development of the Strategic Plan 2012-2016 and the costing of the activities; this plan will be used to provide input into the Global Fund Round 11 proposal. TB CARE I APA 2 will also support the costing of the Global Fund Round 11 proposal.